

Pending Claims
Accompanying November 6, 2002 Response
For U.S. Serial No. 09/473,495
(Docket No. 9626/1L206-US1)

20. (Amended) A method for forming a golf club shaft around a mandrel having a length along a longitudinal axis, the steps comprising:

forming a first reinforcement layer from a first fiber material, said first fiber material having fibers aligned along a single direction;

forming a first angled layer by bonding second and third fiber materials, such that the fibers of said second material form a first angle with the fibers of said third material, said second and third materials having fibers aligned along a single direction;

forming a first straight layer from a fourth fiber material, said fourth fiber material having fibers aligned along a single direction;

forming a second angled layer from fifth and sixth fiber material, said fifth and sixth materials having fibers aligned along a single direction;

bonding said fifth and sixth fiber materials together to form said second angled layer, such that said fibers of said fifth and sixth material form a second angle in the range of from 70-150 degrees and said second angled layer has a thickness in the range of from 0.04 to 0.1 mm;

forming a second straight layer from a seventh fiber material, said seventh fiber material having fibers aligned along a single direction;

forming a second reinforcement layer from an eighth fiber material, said fiber material having fibers aligned along a single direction;

wrapping said first reinforcement layer around said mandrel such that said fibers of said first reinforcement layer are aligned 90 degrees with respect to said longitudinal axis;

wrapping said first angled layer around said first reinforcement layer such that said first angle of said fiber material of said first angled layer is bisected by said longitudinal axis;

wrapping said first straight layer around said first angled layer such that said fibers of said first straight layer are aligned with said longitudinal axis;

wrapping said second angled layer around said first straight layer such that said second angle of said fiber material of said second angled layer is bisected by said longitudinal axis;

wrapping said second straight layer around said second angled layer such that said fibers of said second straight layer are aligned with said longitudinal axis;

wrapping second reinforcement layer around said second straight layer to form a layered wrap, such that said fibers of said second reinforcement layer are aligned with said longitudinal axis;

curing said layered wrap in an oven to form a cured shaft;

removing said mandrel from said cured shaft; and

trimming ends said cured shaft to produce said golf club shaft.